

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

REC'D 04 MAR 2005

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Applicant's or agent's file reference PCT099		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IT 02/00716	International filing date (day/month/year) 11.11.2002	Priority date (day/month/year) 11.11.2002	
International Patent Classification (IPC) or both national classification and IPC F16H29/08			
Applicant GASPARDO SEMINATRICI S.P.A. et al.			

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 6 sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 06.05.2004	Date of completion of this report 02.03.2005
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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IT 02/00716

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1, 3-9 as originally filed
2 filed with telefax on 29.12.2004

Claims, Numbers

1-16 filed with telefax on 29.12.2004

Drawings, Sheets

1/6, 2/6, 4/6-6/6 as originally filed
3/6 filed with telefax on 29.12.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-16
	No: Claims	-
Inventive step (IS)	Yes: Claims	1-16
	No: Claims	-
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	-

2. Citations and explanations

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

D1: DE-A-844522

D2: DE-A-855030

D3: DE-A-3615819

1. Novelty of independent claim 1

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1 and discloses (the references in parentheses applying to this document):

a gearbox (page 2 line 35), particularly for transmission systems in devices for metering granular and/or materials in powder form, comprising a pair of shafts (A, G) that is, a drive-input shaft (A) and a drive-output shaft (G), respectively, there being provided on the drive-output shaft at least one pair of coaxial freewheels (page 2 line 54 to 55; page 3 line 6 to 7), on each of which an end of a respective linkage (C) carrying a movable fulcrum means (D) is active, the opposite end of each linkage being driven with a reciprocating oscillatory motion about the fulcrum means by an eccentric device (B) provided on the drive-input shaft in order to convert the reciprocating oscillatory motion into an intermittent rotary motion of each freewheel and consequently to bring about a rotary motion of the drive-output shaft in a preselected direction of rotation, the drive-input shaft comprising at least one pair of cranks (B and page 2 line 54 to 55) with eccentric pins and each linkage comprising a respective element (C) substantially similar to a connecting rod having a first end (I) connected kinematically to the corresponding freewheel and a second, opposite end (K) articulated on the respective pin of the crankshaft (Fig. 1) with a capability for rotary and translational movement relative to the pin (Fig.3), the movable fulcrum means comprising, for each connecting-rod element, a respective fulcrum pin (D), each fulcrum pin being movable, in adjustable manner, between the opposite ends of the connecting-rod element so as to define different lever arms between said ends (Figures 1 and 2) and consequently to adjust the transmission ratio between the drive-input shaft and the drive output-shaft

of the gearbox page 2 line 66 to 75).

The subject-matter of claim 1 differs from this known gearbox in document D1 in that each fulcrum pin has a first end restrained on a stationary structure of the gearbox and an opposite second end restrained on the corresponding connecting-rod element to constitute the centre of the rotation of said connecting rod element during the reciprocating oscillatory motion relative to the driver-input shaft, said first end of the fulcrum pin being guided slidably in a wall of a casing constituting the gearbox housing and the second end of said fulcrum pin being engaged rotatably and slidably in a seat formed in the corresponding connection-rod element.

The subject-matter of claim 1 is therefore considered to be new (Article 33(2) PCT).

2. Inventive step of independent claim 1

The problem to be solved by the present invention may therefore be regarded as how to accommodate the fulcrum pin in the gearbox housing.

The solution in claim 1 is not contained in or does not seem to be rendered obvious from the state of the art as mentioned in the search report.

The present claim 1 seems therefore to fulfil the provisions of Art 33 (3) PCT.

3. Industrial applicability

The application seems to fulfil the provisions of Art. 33 (4) PCT, because the corresponding gearbox can be produced and used at least in the transmission industry.

4. Dependent claims 2 to 16

The subject-matter of dependent claims 2 to 16 have as subject-matter special embodiments of the invention according to claim 1 and seem to fulfil the requirements of Article 33(2) to (4) PCT.

5. Remarks

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IT 02/00716

The application does not meet the requirements of Rule 5.1(iii) PCT because the advantageous effects of the invention with reference to the background art are not stated in the description.